



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/737,377

12/16/2003

Stephan Karl Barsun

200310970-1

5866

22879

7590

01/11/2006

HEWLETT PACKARD COMPANY

P O BOX 272400, 3404 E. HARMONY ROAD

INTELLECTUAL PROPERTY ADMINISTRATION

FORT COLLINS, CO 80527-2400

EXAMINER

DATSKOVSKIY, MICHAEL V

ART UNIT

PAPER NUMBER

2835

DATE MAILED: 01/11/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/737,377	Applicant(s) BARSUN ET AL.	
	Examiner Michael V. Datskovskiy	Art Unit 2835	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 December 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-28 is/are pending in the application.
 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-19 and 21-28 is/are rejected.
- 7) ☒ Claim(s) 20 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 16 December 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>12/16/03; 06/13/05</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Specification

1. The disclosure is objected to because of the following informalities: On page 9, line 8 and on page 10, line 11 the load point is numbered as 118. On page 10, lines 12-13 the fulcrum is numbered as 118. Also, according to the description on pages 9-10 the lever 102 acts on the lever 104, while in Fig. 3 the lever 104 is overlaying the lever 102. Appropriate correction is required.

Drawings

2. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description: because the lever 102 is shown without any fasteners, it is not clear how it can be held in the working position. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be

Art Unit: 2835

notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1-19 and 21-28 are rejected under 35 U.S.C. 102(e) as being anticipated by McHugh et al (US Patent 6,574,109).

McHugh et al teach an apparatus 50, Figs. 1-7, comprising: a plurality of levers that convert a lesser input force to a greater output force for support of a heat sink component 20 coupled with an electronic component 60 (claim 1), wherein the plurality of levers comprise a first lever 40 and a second lever 10, wherein the first lever 40 converts the lesser input force to an intermediate force on the second lever 10, said intermediate force is greater than the lesser input force; wherein the second lever converts the intermediate force on the second lever to the greater output force, wherein the greater output force is greater than the intermediate force; and second lever 10 employs the greater output force for support of the heat sink component 20 (claim 2).

McHugh et al teach furthermore: an apparatus 50, wherein the first lever 40 comprises

Art Unit: 2835

a first effort point 46 and a first load point 42, wherein the second lever comprises a second effort point 22 and a second load point 16; wherein the first lever receives the lesser input force through the first effort point and applies the intermediate force to the second lever through the first load point; and wherein the second lever receives the intermediate force through the second effort point and applies the greater output force to the heat sink component 20 through the second load point 16, and the second lever applies the output force to the heat sink component 20 through the second load point 16 for support of the heat sink component 20 (claim 3). McHugh et al teach furthermore: an apparatus 50 wherein the second lever 10 applies the greater output force against the heat sink component 20 to secure the heat sink component 20 against one or more portions of the electronic component 60 (claim 4), wherein the second lever comprises a second class lever that comprises a fulcrum 18 that abuts one or more portions of the electronic component 60 for support (claim 5). McHugh et al teach furthermore: an apparatus 50, wherein the first lever 40 comprises a second class lever that comprises a fulcrum 44 that abuts a portion 34 of the electronic component for support, and wherein the second lever 10 supports the first effort point 42 of the first lever 40 (claims 6-7). McHugh et al teach furthermore: an apparatus 50, wherein the heat sink component 20 comprises a substantially flat base that promotes distribution of the greater output force over a face portion 62 of the electronic component 60 (claim 8), and wherein the heat sink component 20 conducts at least a portion of heat away from the electronic component 60. McHugh et al teach furthermore: an apparatus 50, wherein operation of the electronic component generates at least a major portion of the heat,

Art Unit: 2835

and wherein the heat sink component 20 cools the electronic component 60 through conduction away from the electronic component of at least a subportion of the major portion of the heat 9claim 10). McHugh et al teach furthermore: an apparatus 50, wherein one lever of the plurality of levers is selectively engageable with fasteners components 56, 57 for stability of the one or more levers (claim 11), and, wherein one of the plurality of the levers (lever 40) comprises a wireform lever (claim 12), and another one of the levers (lever 10) comprises a leaf spring that serve to maintain the greater output force on the heat sink component 20 within a predetermined tolerance range (claim 13), wherein said levers would inherently maintain a thermal interface between the heat sink component 20 and the electronic component 60 in an effective heat - conduction (thermal interface) relationship upon one or more of shock and vibration of the electronic component (claim 14). McHugh et al teach furthermore: an apparatus 50, wherein the plurality of levers comprise a first lever 40 and a second lever 10, wherein the first lever acts on the second lever to convert the lesser input force to the greater output force for support of the heat sink component 20 (claim 15). Regarding to the claims 23-25: The above rejection is also applicable to the rejection of the claims 23-25 as written in a broader (so called "means") form. Regarding to the claims 16-19, 21-22 and 26-28: The method steps are inherently necessitated by the device structure as McHugh et al teach it.

Allowable Subject Matter

Art Unit: 2835

5. Claim 20 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

6. The following is a statement of reasons for the indication of allowable subject matter: the second input force is applied to the second lever to transmit the intermediate force to the first lever that promoted the increase of the output force on the heat sink component.

7. The prior art made of record provided in the PTO FORM 892 and not relied upon is considered pertinent to applicant's disclosure.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael V. Datskovskiy whose telephone number is (571) 272-2040. The examiner can normally be reached on 8-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lynn Feild can be reached on (571) 272-2092. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2835

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Michael V Datskovskiy
Primary Examiner
Art Unit 2835

01/06/2006